

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/081280 A1

(51) International Patent Classification⁷: **H01J 29/07**

(21) International Application Number:
PCT/US2004/001930

(22) International Filing Date: 23 January 2004 (23.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): THOMSON LICENSING S.A. [FR/FR]; 46 Quai A. Le Gallo, F-92648 Boulogne Cedex (FR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): BARBIN, Robert, Lloyd [US/US]; 2656 Riceville Drive, Henderson, NV 89052 (US).

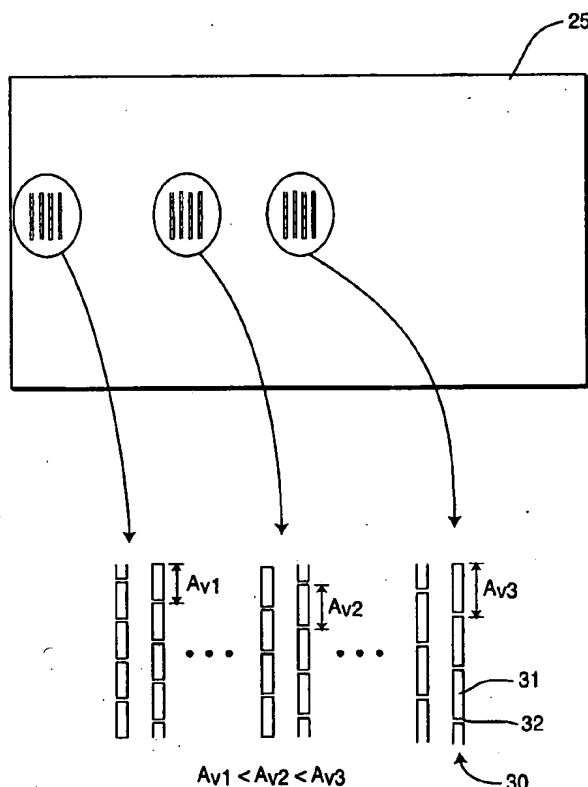
(74) Agents: TRIPOLI, Joseph, S. et al.; 2 Independence Way, Suite #2, Princeton, NJ 08540 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AF, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: CRT HAVING A LOW MOIRE TRANSFORMATION FUNCTION



(57) Abstract: The CRT (10) according to the invention has an envelop (11) including a panel (12) attached to a funnel (15), the funnel having a neck (14) and an electron gun (26) for generating at least one electron beam (28) contained in the neck. A mask (25) is contained in the envelop near the panel. A region of the mask has columns (30) of apertures (31) of predetermined heights and predetermined pitches. The at least one electron beam has a spot size range and spot shape selected such that the moiré transformation function for the CRT in the region is less than about 0.02, wherein the moiré transformation function is a quotient having a numerator being the difference between a maximum value and a minimum value of mask transmission and a denominator being the sum of the maximum and the minimum values. The mask transmission is the percentage of electrons of a spatially uniform electron beam incident on the mask that can propagate therethrough the apertures averaged over a plurality of adjacent mask aperture columns and the regions containing the maximum and minimum values are adjacent to each other.

WO 2005/081280 A1



Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.